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DOCUMENT-IDENTIFIER: US 20010010561 A1

TITLE: Image sensing apparatus and method

PUBLICATION-DATE: August 2, 2001

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-4  
Nagai, Norio Asaka-shi JP

APPL-NO: 09/ 766577

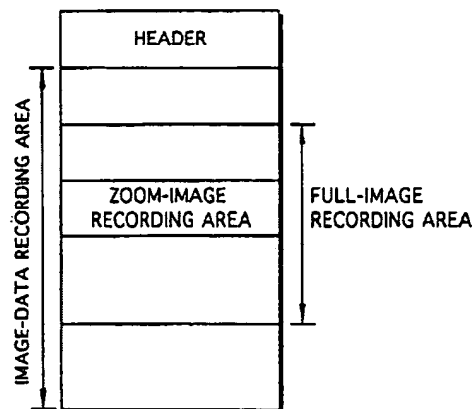
DATE FILED: January 23, 2001

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY APPL-NO DOC-ID APPL-DATE  
JP 2000-13609 2000JP-2000-13609 January 24, 2000

Patent Application Publication Aug. 2, 2001 Sheet 3 of 5 US 2001/0010561 A1

Fig. 3



Details Text Image HTML FULL

EAST Advanced Find

Find what: 26 Find Next

Area: ☐ All ☐ Sel/Our Direction: ☐ Up ☐ Down Match word: ☐ Whole ☐ Part Look in: ☐ Grid ☐ Documents ☐ Match case

5		US 20010010561 A1	20010802	Image se
6		US 20020015098 A1	20020207	Image se same

US-PAT-NO: 6545743

DOCUMENT-IDENTIFIER: US 6545743 B1

TITLE: Producing an image of a portion of a photographic image  
onto a receiver using a digital image of the photographic  
image

KWIC

US Patent No. - PN (1):  
6545743

## Detailed Description Text - DETX (32):

More specifically, in FIG. 4 items 300-303 are substantially identical to items 200-203 in FIG. 3. In item 304, the crop window 80 is positioned centered at the centroid without any rotation. Simultaneously, in a parallel processing step, the position of the crop window 80 is centered at the centroid with a rotation (e.g., 90 degree rotation). In items 306 and 307 the optimal crop window 80 is determined, as discussed above with respect to FIG. 3. produces cropped images 308 and 309. In item 310 the better (e.g., higher of beliefs) of the two cropped images is selected and the corresponding translational and rotational components of the film sample position 9 are recorded.

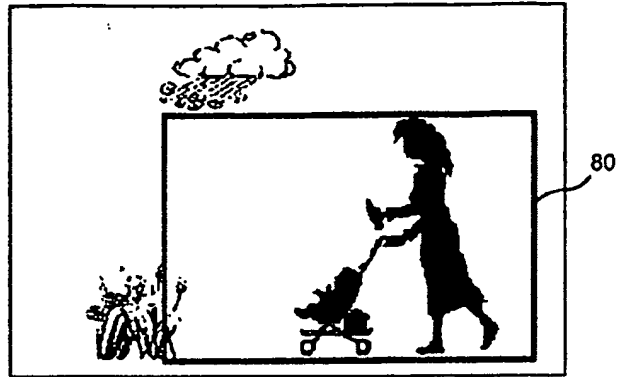


Fig. 10

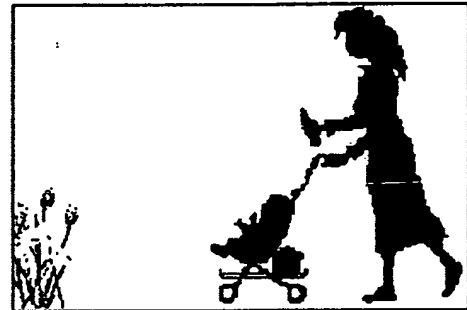


Fig. 11

Details: Text Image HTML KWIC

61

US 20020005907 A1

20020117

Remote c  
video rec

## APPLICATION-DATA:

PUB-NO APPL-DESCRIPTOR APPL-NO APPL-DATE  
JP2001061091A N/A 1999JP-0236241 August 24, 1999

INT-CL (IPC): H04N005/228, H04N005/91

ABSTRACTED-PUB-NO: JP2001061091A

## BASIC-ABSTRACT:

NOVELTY - A zoom block designating unit designates zoom area for the image displayed on display device (8). An electronic zoom process unit performs zooming of the image in the designated zoom area. An enlargement-reduction unit enlarges or reduces the image based on size of zoom area judged by size judging unit and records the image in memory card (10).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) Image data recording procedure;

(b) Zoom image reproducing apparatus;

(6) 特開2001-61091  
10

取られ、メモリに一時的に

10のヘッド記録領域から読  
づいてズーム倍率が算出さ  
・カード10にズーム倍率そ  
にはズーム倍率の算出処理  
もない。また、圧縮画像デ  
ータ伸長が行われる（ス  
データのうち、ズーム情報  
値データについて算出され  
うにおいて電子ズーム処理

された画像データが表示装  
ズーム画像が表示装置8の  
チップ7)。

には、ズーム画像を表示面  
域を含む原画像を表示装置  
のために表示装置8に表示  
と異なる画像を表示装置8  
ができる。このためにズーム  
領域の変更またはズーム倍  
7)、原画像データについ  
れる（ステップ55）、ズ  
めることとなる（ステップ

記録において設定された値  
けでなく、そのズーム画像  
ーム画像を得ることができ

るようになる。

【0065】デジタル・スチル・カメラの電源がオフ  
されるまで、その間についてズーム情報およびズーム  
領域を変更したズーム画像を表示することが可能となる  
（ステップ58）。

【図面の簡単な説明】

【図1】デジタル・スチル・カメラの電気的構成を示  
すブロック図である。

【図2】原画像とズーム画像との関係を示している。

【図3】原画像とズーム画像との関係を示している。

【図4】原画像とズーム画像との関係を示している。

【図5】デジタル・スチル・カメラの記録時における  
処理手順を示すフローチャートである。

【図6】メモリ・カードのデータ構造を示している。

【図7】デジタル・スチル・カメラの記録時における  
処理手順を示すフローチャートである。

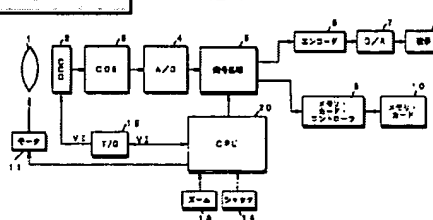
【図8】原画像とズーム画像との関係を示している。

【図9】デジタル・スチル・カメラの再生時における  
処理手順を示すフローチャートである。

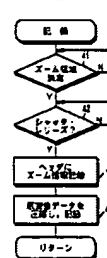
【符号の説明】

- 2 CCD
- 5 信号処理回路
- 8 表示装置
- 10 メモリ・カード
- 13 ズーム・スイッチ
- 15 シャッター・リリース・ボタン
- 20 CPU

【図1】



【図7】



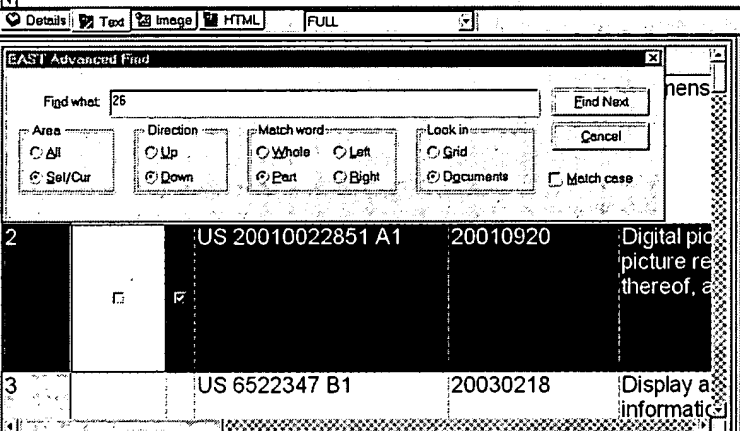
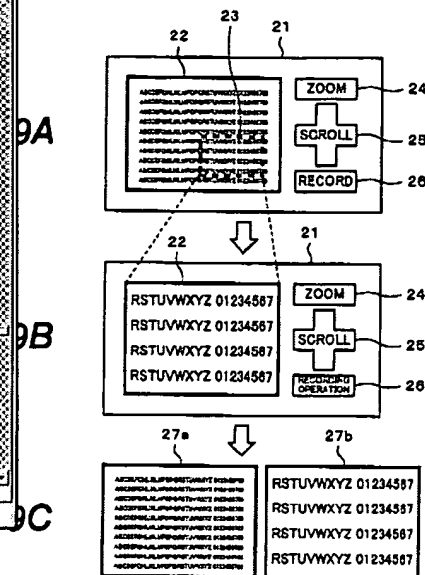
	U	Document ID	Issue Dat	Tit
10	□	US 6559888 B1	2003050 6	Digital camera and method of sm effects
11	□	US 20010022851 A1	2001092 0	Digital picture signal processing ap picture recording apparatus, metho thereof, and data record medium t
12	□	JP 2001061091 A 6	2001030 6	Digital still camera includes enlarg or reduce size of image, based on judged by size judging unit
13	□	US 6597378 B1	2003072 2	Display device, portable informati information storage medium, and e

displayed with a designated magnification ratio. Thereafter, with the scroll key 25, the enlarged picture may be scrolled.

[0124] As shown in FIG. 19C, with a picture 27a reproduced from the record medium 9, an enlarged picture 27b can be obtained in the above-described operation. To save the enlarged picture 27b, the record key 26 is pressed. Thus, the enlarged picture 27b is converted into a GIF file and recorded to the record medium 9. The picture 27a and the enlarged picture 27b are recorded as different files. Thus, in a large character manuscript or the like, a desired portion can be enlarged. The enlarged picture can be recorded as another file.

[0125] The present invention can be applied to other digital picture recording apparatuses as well as a digital camera. For example, the present invention can be applied to the case that a digital picture recording apparatus for a moving picture has a still picture recording function. In addition, the present invention can be applied to the case that a portable personal computer having a CCD processes a photographed picture.

[0126] According to the present invention, a picture process can be performed corresponding to a captured picture. In other words, a natural picture is compressed corresponding to a non-inversible encoding method such as the JPEG method. On the other hand, a character manuscript can be digitized and encoded



DOCUMENT-IDENTIFIER: US 20030189730 A1

TITLE: Index print producing method, image processing system,  
image processing method and image processing device

KWIC

## Summary of Invention Paragraph - BSTX (15):

[0014] If image output is again requested, the above image processing system is able to perform a processing known as cropping in which image data in an arbitrary range (a range instructed by the user) is extracted; an image in the instructed range is enlarged and recorded (the cropping range) using image data subjected to an enlarging by electronic power variation; and image data is stored in an information recording medium. Note that when the cropping processing is carried out, the original image which is to be cropped is displayed on a display unit and the cropping range is instructed by the user who indicates on the surface of a display unit the positions of the edge of the range to be cropped, thus allowing the cropping range to be recognized on the basis of the indicated edge positions.

## Detail Description Paragraph - DETX (212):

[0322] Also in a case where the photographic film set to the line CCD scanner 14 is a photographic film having images photographed and recorded by the film with lens attached, the LF-aberration correcting section 140Y subjects image data corresponding to the cropping range cut by the cropping section 140X to processings (the LF aberration correction processing) equivalent to those for the pre-scan processing in steps 510 to 518.

Publication Oct. 9, 2003 Sheet 14 of 32 US 2003/0189730 A1

FIG. 1 IA

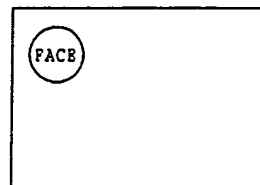


FIG. 1 IB

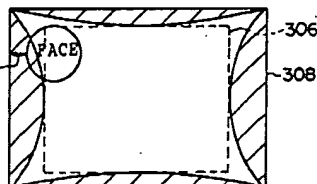
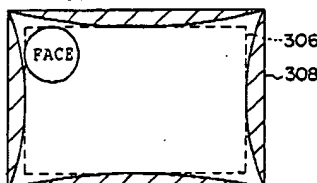


FIG. 1 IC



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33

US 20030178282 A1

20030925

Integrator

KWIC

US Patent No. - PN (1):  
6123733

Detailed Description Text - DETX (20):

More particularly with respect to digital data 10, raw digital data 10 is representative of the three dimensional object features and substantially corresponds to transverse slices of the human body. Thus, raw digital data 10 includes a number of slices (n), whereby each slice contains a number of voxels. Raw digital data 10 from each of the voxels represents a scanned intensity (I.sub.x,y,z) value of the portion of the physical feature (i.e., tissue, organ, bone) contained in the voxel. Because the voxels are distributed among three axes (x,y,z), projections along any one of these three axes produces one of three standard views. Because each axis can be viewed from either end, six natural views exist. Each view has four simple orientations which cause each voxel to map onto itself, so at least 24 ways exist for viewing a single set of the objects' raw digital data 10 by simple re-ordering of the voxels and projecting the data along one of the axes. With more complex and computationally intensive resampling procedures, any view of the data can be produced. When the present invention is applied to medical imaging of anatomy, three standard views along the axes (i.e., axial, coronal and lateral) are normally requested by physicians. An operator preferably manipulates views to see the projection of the crop region along any of the three axes and to view simulations of any of the views before recording in a print medium.

Sep. 26, 2000

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6,123,733



G. 5A

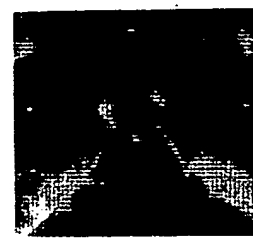


FIG. 5B



G. 5C



FIG. 5D

Details | Text | Image | HTML | KWIC

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20030925

Method a  
product

num (e.g., a film director). In the telecine process, image areas to be cut out are designated such as to make a version of the original work, and the designated areas are cut out.

#### Brief Summary Text - BSTX (13):

For example, a sequence of edge-cropped images made in this manner is encoded and recorded on a recording medium or transmitted over a predetermined transmission channel. On the user side, each edge-cropped image recorded on the recording medium or transmitted over the transmitted channel is reproduced or received. The reproduced or received image is decoded to be displayed on a 4:3 monitor (a monitor having an aspect ratio of 4:3).

#### Brief Summary Text - BSTX (14):

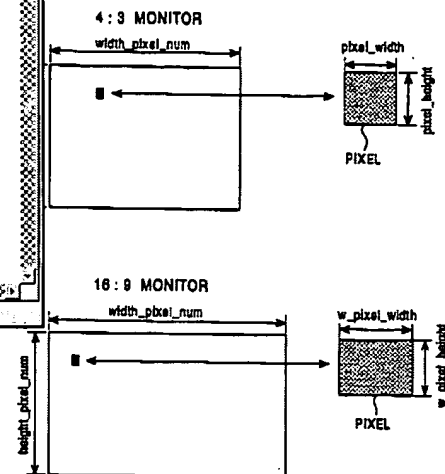
A sequence of images formed by the squeeze method (squeezed images) and televised or recorded on a recording medium to be sold is produced as described below. As shown in FIG. 10, each of a sequence of images on a film is filtered in the horizontal direction so that the aspect ratio is set to 4:3, thereby forming a sequence of images elongated in the vertical direction as shown in FIG. 8(D). Each elongated 4:3 image, i.e., a squeezed image, is encoded and recorded on a recording medium or transmitted over a predetermined transmission channel, as is the above-described edge-cropped image.

Jan. 18, 2000

Sheet 11 of 12

6,016,362

FIG. 11



Details | Text | Image | HTML | KWIC

	U	1	Document ID	Issue Date	
1			US 20020144262 A1	20021003	Alternativ
2			US 6016362 A	20000118	Apparatu
3			US 3794756 A	19740226	APPARA PARAME

which they were initially recorded to a permanent storage disc and, in the process, to edit the images, e.g. by eliminating unwanted images, rotating selected images, selectively cropping images and/or enlarging or decreasing the size of selected images. Such editing techniques are well known in the television art, but are accomplished by electronic means that are prohibitively expensive and complex for amateur or mass market use.

#### Detailed Description Text - DETX (10):

FIGS. 3A and 3B show a method for cropping undesired portions of an image. In FIG. 3A, the image as originally recorded on the transfer disc 30 includes the fingers 50 of the camera operator which were inadvertently placed in front of the camera's picture taking lens. The control electronics 12, by omitting picture information at the beginning and/or end of a scan line, at the beginning or end of a field, or at the beginning or end of a vertical scan, can crop the undesired portions of the originally recorded image so that the image recorded on the master storage disc 36 is as shown in FIG. 3B. The cropped portions of the originally recorded image are indicated by the shaded portions 52.

#### Detailed Description Text - DETX (16):

In operation of the control electronics 12, at the appropriate time during the rotation of the disc 30, the switch S.sub.1 is closed by the CPU 46 and a portion of the video signal from the transfer disc 30 (e.g., one horizontal line of one field of an N.T.S.C. format image) is fed to a multiplexer 48. The multiplexer 48, which is operative under the control of the CPU 46, multiplexes the video signal pulses into a sequence, which may include signal pulse deletion in the case of image cropping or signal pulse repetition in this case of image magnification, that is desired for recording on the master disc 36. The output of the multiplexer 48, which is provided in parallel form, is then loaded into a line memory 50.

Patent Mar. 19, 1985

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FIG. 2A

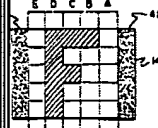


FIG. 2B

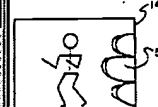


FIG. 3A

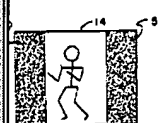


FIG. 3B

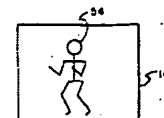


FIG. 4A

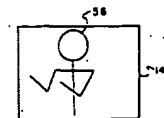


FIG. 4B

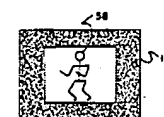


FIG. 4C



## Brief Summary Text - BSTX (4):

Recently, many devices have been developed for recording individual visual image frames on recording discs, e.g. magnetic video discs. It is advantageous to be able to transfer the images from an inexpensive and/or reusable disc on which they were initially recorded to a permanent storage disc and, in the process, to edit the images, e.g. by eliminating unwanted images, rotating selected images, selectively cropping images and/or enlarging or decreasing the size of selected images. Such editing techniques are well known in the television art, but are accomplished by electronic means that are prohibitively expensive and complex for amateur or mass market use.

## Detailed Description Text - DETX (10):

FIGS. 3A and 3B show a method for cropping undesired portions of an image. In FIG. 3A, the image as originally recorded on the transfer disc 30 includes the fingers 50 of the camera operator which were inadvertently placed in front of the camera's picture taking lens. The control electronics 12, by omitting picture information at the beginning and/or end of a scan line, at the beginning or end of a field, or at the beginning or end of a vertical scan, can crop the undesired portions of the originally recorded image so that the image recorded on the master storage disc 36 is as shown in FIG. 3B. The cropped portions of the originally recorded image are indicated by the shaded portions 52.

## Detailed Description Text - DETX (16):

In operation of the control electronics 12, at the appropriate time during the rotation of the disc 30, the switch S.sub.1 is closed by the CPU 46 and a portion of the video signal from the transfer disc 30 (e.g., one horizontal line of one field of an N.T.S.C. format image) is fed to a multiplexer 48. The multiplexer 48, which is operative under the control of the CPU 46, multiplexes the video signal pulses into a sequence, which may include signal

Patent Mar. 19, 1985

Sheet 2 of 3 4,506,304

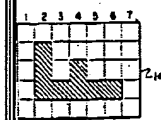


FIG. 2A

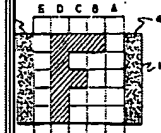


FIG. 2B



FIG. 3A

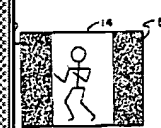


FIG. 3B

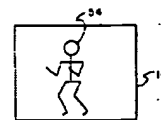


FIG. 4A

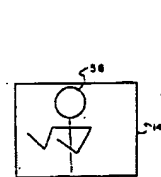


FIG. 4B

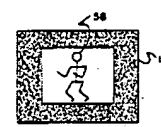


FIG. 4C

Details | Text | Image | HTML | KWIC

6 | US 5526080 A | 19960611 | Camera

TITLE: Remote control unit with visual display device for  
cameras and video recorders

— KWIC —

Pre-Grant Publication Document Identifier - DID (1):

US 20020005907 A1

Detail Description Paragraph - DETX (8):

[0025] The correspondence between the image being captured by the storage device and the image information transmitted to and displayed on the remote control unit can be improved by processing the image information before the image information is displayed. For example, if the image recorder includes a zoom option (either optical or software driven), the zoom power can be used to "crop" the image information before it is displayed. It will also be appreciated that any conventional image processing routines can be applied to the image information to improve the quality of its display on the image display device. Also, conventional data compression techniques can be used to reduce the amount of data being transmitted to the remote control unit.

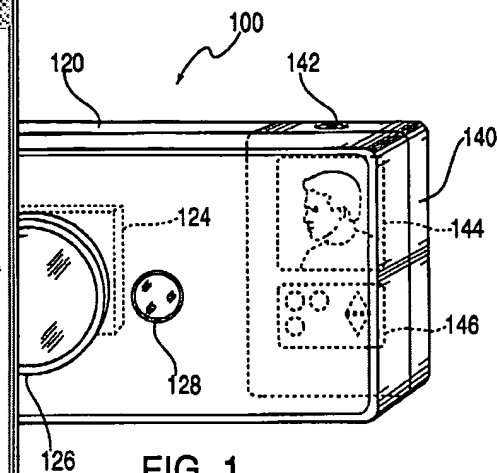


FIG. 1

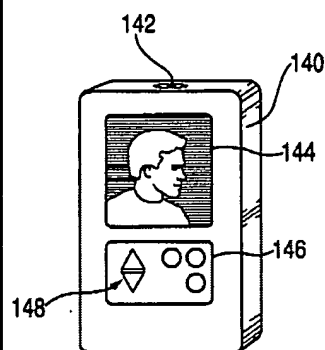


FIG. 2

Details | Text | Image | HTML | KWIC